

REMARKS/ARGUMENTS

A. Amendment to the Claims

Claims 1-4, 6, 9-12, 22, 23, 44-55 and 57-75 remain in the application. Claims 1, 9, 12, 60, 63, 68, 70, 72 and 74 are amended. Claim 10 is canceled.

Claims 1, 12, 60, 63, 68, 70, 72 and 74 have been amended to correct depending and/or antecedent bases. Claim 9 is amended to incorporate the limitation of Claim 10, now canceled.

New Claim 76 is added, dependent to Claim 1, to provide that wherein the change tool includes a blade having an edge that, when the plug is the plug in the second rotated position, any of the plurality of change balls is disposed in its respective retainer cavity, and the change tool is inserted within the change tool slot, raises said any of the plurality of change balls out of the retainer cavity to a position where, upon subsequent rotation of the plug away from the second rotated position, the change ball is isolated in the driver chamber. Support is found at paragraphs [0155], [0156], and [0191].

Applicants believe that no new matter has been added by way of the amendments to the claims.

B. Double Patenting over Applicant's co-pending applications

The Examiner raises a provisional obviousness-type double patenting rejection against Applicants commonly-owned, co-pending Application 11/178,627 (Attorney docket EZL-005M), assigned to EZ Change Lock Company, LLC. The Examiner considers that the inventions, though not identical, are not patentably distinct from each other "because they substantially claim the same subject matter, and claims 1- 16, and 19-22 of the '627 application fully encompass the subject matter of the claims of the instant application".

The Examiner also raises a provisional obviousness-type double patenting rejection against Applicant's commonly-owned, co-pending Application 11/192,755 (Attorney docket EZL-004M), assigned to EZ Change Lock Company, LLC. The Examiner considers that the inventions, though not identical, are not patentably distinct from each other "because they substantially claim the same subject matter, and claims 1-17 and 21-23 of the '755 application fully encompass the subject matter of the claims of the instant application".

The Examiner also raises a provisional obviousness-type double patenting rejection against Applicant's commonly-owned, co-pending Application 11/374,299 (Attorney docket EZL-006), assigned to EZ Change Lock Company, LLC. The Examiner considers that the inventions, though not identical, are not patentably distinct from each other "because they substantially claim the same subject matter, and claims 1-8 of the '299 application fully encompass the subject matter of the claims of the instant application".

Applicant requests reconsideration.

The present application was filed with a priority benefit to US provisional applications 60/469025 and 60/481298, filed May 8, 2003 and August 27, 2003, respectively. These priority dates are more than a year earlier than the earliest priority filing of the reference applications 11/178,627, 11/192,755 and 11/374,299. A review of the scope of the inventions would clearly establish that the invention of the present application is the dominant invention, while those inventions in the reference applications are either improvements in the dominant patent, or improvements in the more general field of rekeyable locks.

Applicant believes that none of the claims of any of the three reference patent applications are obvious in light of the present basic patent application. Nevertheless, a terminal disclaimer has been filed in 11/374,299, to the present application and to the applications 11/178,627 and 11/192,755.

There is an established patent rule that when a basic patent is filed before, but issues after, an improvement patent, the order of issuance is disregarded and the later-issuing basic patent is upheld if the improvement patent is not obvious in light of the basic patent. *See* 3 D. Chisum, *Patents*, § 9.03 [2][c] (2000) and binding precedents of the CAFC cited therein, as well as *Eli Lilly v. Barr Laboratories, Inc.*, 251 F.3d 955, 58 USPQ2d 1865 (Fed. Cir. 2001).

Applicant also notes that none of the three reference patent applications has yet issued, although the application 11/192,755 (Attorney docket EZL-004M) has been allowed and the issue fee has been paid.

C. Objections in the Claims

The objections to the claims have been corrected by amendment, including replacing "subset" with "set", and in Claim 72 deleting "the periphery and".

D. Rejection of Claims 1-4, 6, 9-12, 22, 45-52, 55, 58-60, 63-65 and 68-72 under 35 USC 103(a) over Monahan (4,386,002) in view of EP 0918124.

The Examiner states “Monahan teaches a lock including a housing 30, a plug 34, springs 49, drivers 44, pins 45, plural keys regarded user keys of a set, a programming key and a master key with different (raised and lowered) contour edges received in the keyway passage 62, a change tool slot 52, a change tool 51, change members 47 moved by the change tool as seen in figure 14 after the plug is rotated. Monahan also teaches a shim defined by the topmost wafer 47 as seen in figure 12. With respect to paragraph “e)” of claim 6, for example, the lock of Monahan is capable of being reconfigured solely in response to a key, by removing the change tool such as in the figure 11 condition and then inserting a key, rotating the key, and allowing a change member 47 to fall within the retainer cavity. As seen in figure 17, the EP (124) reference teaches using a ball (e) as a change member with a retainer cavity (f). It would have been obvious to substitute a ball in place of, or in addition to, the plural change member discs 47 of Monahan, in view of the teaching of the EP (124) reference, the motivation being to prevent jamming between the topmost disc 47 in the retainer cavity and the shear line in the figures 13 and 14 position of Monahan.”

Applicant traverses.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference(s) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the

artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972,973 (Bd. Pat. App. & Inter. 1985).

The Applicant believes that the Examiner has not met the initial burden of establishing a *prima facie* obviousness rejection.

i) The Examiner has not detailed any particular suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references.

The Examiner appears to base the obviousness of substituting a ball in place of, or in addition to, the plural change member discs 47 of Monahan, on a motivation to prevent jamming between the topmost disc 47 in the retainer cavity and the shear line in the figures 13 and 14 position of Monahan. Applicant can find no disclosure, mention or suggest in Monahan or in EP 0918124, of the jamming of discs in or at the retainer cavity or shear line.

The only mention in the record of jamming of a cylinder-shaped pin in the lock is found in Applicant's disclosure. As established above, the teaching or suggestion to make the claimed combination must be found in the prior art, and not based on applicant's disclosure (*In re Vaeck*). Since it is not, the Examiner has not established a *prima facie* obviousness rejection.

Notwithstanding that the Examiner has based the motivation for combining the art on Applicant's own description, Applicant believes that a person of ordinary skill would not otherwise consider combining the teaching of Monahan and EP0918124, but for Applicant's invention. Monahan relates to a programmable lock that uses a uniquely-bitted programming tool to provide the appropriate configuration of master pins or disks in a series of blind holes to configure the lock for a corresponding uniquely cut user key of a set of keys. In the set blade embodiments of Monahan, the set blades and keys are in pairs, with one unique set blade paired with one unique key. EP 0918124 relates to a lock that moves balls from of the pin chamber to out of the lock, to change the configuration for a different user key (see para 0021 and para. 0030, and Fig. 8 and 9 of EP 0918124). [Here, Applicant notes that figure 17 of EP 0918124 and the ball (e) and cavity (f) are being referenced as prior art, where the ball is moved from the pin chamber to a blind hole in a similar manner as described in Check, US Patent 3,183,692. EP 0918124, instead of moving the balls into blind holes, withdraws them from the lock within the hole (81) in the blade of the key.]

EP 0918124, like Check US Patent 3,183,692, irreversibly removes balls from the pin chamber effect a key change. Applicant believes that a person of ordinary skill can find not reason to combine the teaching or elements of these two references, but for Applicant's disclosure.

ii) The Examiner has not established that there is a reasonable expectation of success in combining the ball of EP 0918124 into the lock of Monahan.

Although the Examiner suggests that the plural of cylindrical discs 47 of Monahan can be replaced with the balls of EP 0918124, Applicant believes that a person of ordinary skill could not predict with certainty the effect on performance of the Monahan lock if the flattened master pins were replaced with round balls.

First, Applicant believes that the size and shape of the master pins were selected by Monahan to achieve the particular purpose of his lock. Monahan referred to the member 47 only as a "master pin".

Second, byway of an example, Applicant calls to the Examiner's attention the Monahan embodiment of Figs. 1 and 18-19. In order for the plug to rotate in the lock with a ball member in the blind hole (as shown in Fig. 17C), the ball would need to have a diameter no greater than the thickness of the disc 47. From the figures in Monahan, a ball of such a diameter would obviously and easily become improperly positioned within the lock: it could become wedged in between the set rod 58 and the blind hole 50 or the U-shaped slot 59; or it could roll into the corner of the blind hole 50 in a position where it could not be lifted out of the blind hole by the set rod as required. Therefore, as described in Monahan, a change member in the shape of a ball that is substituted for the disc member would reasonably not operate the lock properly. While there may be other changes that could be made to the lock of Monahan to accommodate a ball, a person of ordinary skill could not easily predict with either ease or certainty the effect on performance of the Monahan lock if the disc-shaped master pins were replaced with round balls.

Therefore, Applicant does not believe that the Examiner has established a reasonable expectation of success in combining the ball of EP 0918124 into the lock of Monahan.

With respect to paragraph "e)" of claim 6, the Examiner states that "the lock of Monahan is capable of being reconfigured solely in response to a key, by removing the change tool such as

in the figure 11 condition and then inserting a key, rotating the key, and allowing a change member 47 to fall within the retainer cavity.”

Applicant respectfully traverses. First, when the Monahan lock is in the condition shown in Fig. 11, if any of the blind holes 50 have even one master pin 47 disposed therein, the set blade 54 will not be capable of removal, since the “peak” on the leading end 69 will trap that pin 47 against the wall between adjacent blind holes. Second, if the lock of Monahan is operated without a set blade in the slot, it would appear that any of the drivers 44 will fall down into the blind hole unless each of the blind holes has both master pins 47 disposed therein. That situation may occur only when the master key (Fig. 5) is used, but would not occur when the first change key C1 is used (Fig. 9). Since both master pins 47 are required in the pin stack to raise the drive pin 44 to the shear line at the key insertion position, it is clear that the drive 44 would fall down irretrievably into the blind hole without a set blade in the slot.

Therefore, the lock of Monahan does not appear to be capable of being reconfigured solely in response to a key.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness, and the applicant is under no obligation to submit evidence of nonobviousness if the examiner does not produce a *prima facie* case. (MPEP 2142).

Furthermore, with respect to claim 48, the set blade 54 of Monahan does not have a linear upper edge that can raise each change ball out its respective retainer cavity. With respect to claim 49, any one of the alleged “change tools” of Monahan can not be used to reset the lock and to reconfigure the lock for any key of the set of keys. With respect to claim 76, wherein the set blade of Monahan does not have an edge that, when the plug is in the second rotated position, any of the plurality of master pins is disposed in its respective retainer cavity, and the set blade is inserted within the change tool slot, raises said any of the plurality of master pins to a position where, upon subsequent rotation of the plug away from the second rotated position, the master pin is removed from the retainer cavity and isolated in the corresponding driver chamber.

E. Rejection of Claim 23 under 35 USC 103(a) over Monahan (4,386,002) in view of EP 0918124, and further in view of Smith (4,741,188).

The Examiner states “In fig. 94, Smith teaches a shim 583 of a first diameter and a retainer cavity 545 of a second, smaller diameter. It would have been obvious to use a larger

diameter shim with a retainer cavity of Monahan, in view of the teaching of Smith, the motivation being to control how many change members may enter a change cavity, in reprogramming a lock.”

Applicant traverses.

The Examiner’s scenario does not appear correct. Monahan relates to a programmable lock that uses a uniquely-bitted programming tool (set blade) to provide the appropriate configuration of master pins or disks in a series of blind holes to configure the lock for a corresponding uniquely cut user key of a set of keys. In the set blade embodiments of Monahan, the set blades and keys are in pairs, with one unique set blade paired with one unique key. The disclosure of Monahan thus makes it clear that the configuration of the set blade and the configuration of the user key are selected to ensure that the blind hole 50 is completely filled during operation of the lock. Therefore, there does not appear to be, in the proper operation of the Monahan lock, a situation where one would need to “control how many change members may enter a change cavity, in reprogramming a lock.”

F. Rejection of Claims 44, 57, 61, 62 and 73-75 under 35 USC 103(a) over Monahan (4,386,002) in view of EP 0918124, and further in view of additional teachings of EP 0918124.

The Examiner states “As seen in fig. 17, the EP (124) reference also teaches drivers pins (b) larger than the opening of the retainer cavity (f). It would have been obvious to form the retainer cavity of Monahan smaller than the driver chambers for use with the change member balls of Monahan as modified by the EP (124) reference, in view of an additional teaching of the EP (124) reference, the motivation being to prevent jamming of the lock at the shear line by the drivers and the retainer cavity.”

Applicant traverses.

Again, the Examiner’s scenario does not appear correct, and thus there is a lack of motivation within Monahan for a person of ordinary skill in the art to consider the benefit allegedly described in EP 0918124. As explained above, there does not appear to be, in the proper operation of the Monahan lock, a situation where one would need to “control how many change members may enter a change cavity, in reprogramming a lock.” Also, EP 0918124 does not clearly teach “drivers pins (b) larger than the opening of the retainer cavity (f)”, though having the figure in hand, a person of ordinary skill could reasonably conclude the same.

Further, Applicant's claim 62 provides that the change tool is remote from the lock during operation of the lock. This limitation is not disclosed or suggested in Monahan.

Applicant's claim 74 provides that the at least one change ball moves from the first position to the at least one retainer cavity only when the change tool does not intersect the at least one retainer cavity, and moves from the at least one retainer cavity to the first position when the change tool intersects the at least one retainer cavity. EP 0918124 does not teach change tool. Monahan teaches that a master pin 47 is not always moveably from the pin chamber to the blind hole 50 if the set blade 54 is in a raised configuration that will not allow entry of an additional master pin, and also teaches that master pins 47 are typically retained in a blind hole when the set blade is in the slot.

G. Rejection of Claims 53, 54, 66 and 67 under 35 USC 103(a) over Monahan (4,386,002) in view of EP 0918124, and further in view of additional teachings of Monahan and Smith.

The Examiner states "Monahan also teaches master shims defined by the topmost wafer 47 as seen in fig. 12. In fig. 94, Smith teaches a shim 583 of a first diameter and a retainer cavity 545 of a second, smaller diameter. It would have been obvious to use a larger diameter shim with a retainer cavity of Monahan, in view of the teaching of Smith, the motivation being to control how many change members may enter a change cavity, in reprogramming a lock."

Applicant traverses.

Again, the disclosure of Monahan makes it clear that the configuration of the set blade and the configuration of the user key are selected to ensure that the blind hole 50 is completely filled during operation of the lock. Therefore, there does not appear to be, in the proper operation of the Monahan lock, a situation where one would need to "use a larger diameter shim with a retainer cavity of Monahan", since there is no motivation in view of Monahan to "control how many change members may enter a change cavity, in reprogramming a lock".

H. Prosecution in Applicant's other lock applications

Applicant wishes to call to the Examiner's attention the following applications owned by Applicant, the status thereof, and the latest rejections and references cited herein, and requests that the Examiner review such related applications.

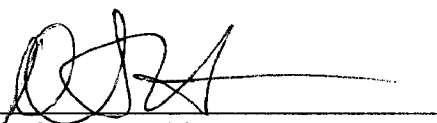
<u>USSN</u>	<u>Atty Docket</u>	<u>Status</u>
11/192,755	EZL-004M	Notice of Allowance
11/178,627	EZL-005M	Non-final rejection and response
11/374,299	EZL-006	Non-final rejection and response

Conclusion

Applicant believes a full and complete response to the Action has been made. Applicant requests withdrawal of all objections and rejections, and allowance of all claims.

Respectfully submitted,

For: Rodrick A. Herdman

By 
Daniel F. Nesbitt
Attorney for Applicant
Registration No. 33,746
(513) 229-0383
Customer Number 26868

September 28, 2007